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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,779	09/06/2006	Tony Whittaker	WW/3-22357/A/PCT	4513
324	7590	12/02/2009		
JoAnn Villamizar Ciba Corporation/Patent Department 540 White Plains Road P.O. Box 2005 Tarrytown, NY 10591			EXAMINER HRUSKOCI, PETER A	
			ART UNIT 1797	PAPER NUMBER
			NOTIFICATION DATE 12/02/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/591,779	<b>Applicant(s)</b> WHITTAKER ET AL.	
	<b>Examiner</b> /Peter A. Hruskoci/	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7,10, and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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The disclosure is objected to because of the following informalities: In the specification on page 6 line 4 “the second flocculant” appears to be erroneous and should be changed to – a second flocculant, and in line 24 “susbstrate” is erroneous and should be changed to – substrate -.

Appropriate correction is required.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1 “the release polymer” lacks clear antecedent basis.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 7, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/072482 A2 Weir et al. in view of Winn et al. 6,447,687. Weir et al disclose (see pages 2-6) disclose a process of dewatering an aqueous suspension of sewage sludge substantially as claimed. It is submitted that the reverse phase polymer added in the process of Weir et al. would appear to invert in the suspension and release sufficient polymer to bring about flocculation, thickening, and cake formation as in the instant process, since the same polymers and amounts appear to be utilized to dewater the same types of aqueous suspensions. The claims differ from Weir et al. by reciting that the process includes producing a thickened suspension by the release of free water by free drainage or filtration, mixing the fully inverted released polymer into and distributing throughout the thickened suspension, and subjecting the thickened suspension to mechanical dewatering to form a cake. Winn et al. disclose (see col. 7

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line 1 through col. 10 line 21) that it is known in the art to mix sewage sludge with a reverse phase emulsion polymeric flocculant, utilize a thickener to thicken the sludge by removing a filtrate, and dewater the thickened sludge to produce a cake. It is noted that the polymeric flocculant of Winn et al. can be added at one or more dosage points, and can be added as an anhydrous reverse phase emulsion. It would appear that the thickener utilized in Winn et al. would mix and distribute the released polymeric flocculant from the reverse phase emulsion throughout the thickened suspension. It would have been obvious to one skilled in the art to modify the process of Weir et al. by utilizing the recited thickening, mixing, distributing, and mechanical dewatering in view of the teachings of Winn et al., to aid in dewatering the sludge and forming a cake. The specific weight percent and intrinsic viscosity of the polymer, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific suspension treated and results desired absent a sufficient showing of unexpected results.

Applicants argue that Weir et al. does not suggest mixing of a thickened suspension in order to distribute the release polymer within the suspension. It is noted that “the release polymer” appears to lack clear antecedent basis for reasons stated above. It is further noted that Winn et al. as applied above was used to disclose that it is known in the art to mix sewage sludge with a reverse phase emulsion polymeric flocculant, utilize a thickener to thicken the sludge by removing a filtrate, and dewater the thickened sludge to produce a cake. It would appear that the thickener utilized in Winn et al. would mix and distribute a released polymeric flocculant from the reverse phase emulsion throughout the thickened suspension as recited in the instant claims.

Applicants argue that Weir et al. would also not be embraced by claim 2 because even when a reverse-phase polymer is used in Weir et al. it is used in combination with an aqueous

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solution, which is clearly not a reverse-phase polymer but an inverted polymer in water. It is noted that the composition of Weir et al. can be added as a reverse phase dispersion or polymer in oil dispersion. Furthermore, instant claim 2 fails to exclude the addition of an aqueous solution.

Applicants allege that the thickening and mixing steps of the instant process are important in view of the surprising results and unexpected cake solids shown in instant Table 1. It is noted that the increased dewatering effect disclosed on page 2 of Weir et al. appears to include a higher cake solids. The results shown in instant Table 1 have been carefully considered but fail to overcome the above rejection. It is submitted that the specific test conditions utilized to produce the results shown in the Table 1 are not commensurate with the scope of the instant claims. It is noted that the experimental procedure used to produce the results shown in Table 1 included the use of the polymer in the form of a dehydrated emulsion, a specific furrowing technique, and compression dewatering device, which are not recited in the instant claims. Claim 1 properly written to include this emulsion, technique, and device, would be allowable.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Peter A. Hruskoci/ whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter A. Hruskoci/  
Primary Examiner  
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11/25/09